PATENT

PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Currently amended) A method comprising:

detecting a request for opening a <u>new</u> connection between an access terminal and a data network for communication of data;

<u>in response to the detected request, determining whether an access network between the access terminal and the data network has an overload condition;</u>

<u>if the access network has the overload condition,</u> <s>detecting a plurality of</s> <u>determining whether there are any</u> pre-existing <u>idle</u> open connections in [[an]] <u>the</u> access network <s>between the access terminal and the data network,</s> <u>each idle open connection having assigned communication resources;</u>

selecting one of the pre-existing <u>idle</u> open connections based <s>in part</s> on <u>at least one of (a) open connection times and (b) previous</u> data traffic activity of the pre-existing <u>idle</u> open connections<s>, each pre-existing open connection being in one of a busy open state or an idle open state</s>;

releasing said selected pre-existing <u>idle</u> open connection; and

allocating, to said <s>access terminal</s> <u>new connection,</u> communication resources corresponding to said released, selected pre-existing <u>idle</u> open connection.

2. (Currently amended) The method <s>as recited in</s> <u>of</u> claim 1 wherein <s>said selected open connection is in an idle open state</s> <u>determining the overload condition comprises at least one of (a) determining whether communication resources in the access network are limited, (b) determining whether a pre-configured number of maximum connections per channel has been reached, and (c) determining whether a reverse link loading threshold has been exceeded.</u>

3-4. (Canceled)

5.   (Currently amended)   ~~In a communication system for communication of data, a~~ The method of claim 1 ~~comprising:~~ wherein selecting one of the pre-existing idle open connections comprises:

~~detecting a request for opening a connection for a user for communication of data;~~

~~determining whether two or more open connections are in an idle open state;~~

comparing idle open connection times of two or more idle open connections; and

selecting an idle open connection, from said two or more idle open connections ~~in said idle open state~~, with a longest idle open state connection time[[;]]

~~releasing said selected open connection; and~~

~~allocating, to said user, communication resources corresponding to resources released based on said releasing said selected open connection.~~

6.   (Currently amended)   The method ~~as recited in~~ of claim 1 ~~further comprising~~ wherein selecting one of the pre-existing idle open connections comprises:

~~determining whether two or more open connections are in an idle open state;~~

comparing amounts of data previously transferred by the idle open connections when the idle open connections were in busy open states; and

determining which [[an]] idle open connection~~, from said two or more open connections in said idle open state, used to transfer~~ previously transferred a predetermined amount of data in a predetermined period of time~~; wherein said selected open connection is said determined open connection used to transfer said predetermined amount of data in said predetermined period of time~~.

7.   (Currently amended)   The method ~~as recited in~~ of claim 6 wherein said predetermined amount of data is a largest amount of data transferred ~~by a user of users of said two or more open connections in said idle open state~~.

8.   (Currently amended)   The method ~~as recited in~~ of claim 1 ~~further comprising~~ wherein selecting one of the pre-existing idle open connections comprises:

~~determining whether two or more open connections are in an idle open state;~~

comparing data transfer rates of the idle open connections when the idle open connections were in busy open states; and

determining which [[an]] idle open connection, from said two or more open connections in said idle open state, used to transfer transferred data at a predetermined data rate in a predetermined period of time; wherein said selected open connection is said determined open connection used to transfer data at said predetermined data rate in said predetermined period of time.

9. (Currently amended) The method as recited in of claim 8 wherein said predetermined data rate is a highest data rate used by a user of users of said two or more open connections in said idle open state.

10. (Currently amended) The method as recited in of claim 8 wherein said predetermined period is a period before a user of users of said two or more open connections in said idle open state moves to said idle open state when the idle open connections were in busy open states.

11. (Currently amended) The method as recited in of claim 1 further comprising: wherein selecting one of the pre-existing idle open connections is further based on

determining whether two or more open connections are in an idle open state, wherein said selecting is based on a random selection from said two or more open connections in said idle open state.

12. (Currently amended) The method as recited in of claim 1, further comprising wherein selecting one of the pre-existing idle open connections comprises:

determining whether two or more open connections are in an idle open state,

comparing total idle open and busy open connection times of two or more idle open connections; and

determining which [[an]] idle open connection from said two or more open connections in said idle open state with has a longest combined idle open state connection time and busy open

state connection time; ~~wherein said selected open connection is said determined open connection with said longest combined idle open state connection time and busy open state connection time~~.

13.   (Currently amended) The method ~~as recited in~~ of claim 1, if there are no idle open connections, further comprising:

    determining whether an open connection is in a busy open state ~~and no open connection is in an idle open state~~; and

    ~~wherein said selected~~ releasing the busy open connection ~~is said open connection in said busy open state~~.

14.   (Currently amended) The method ~~as recited in~~ of claim 1, if there are no idle open connections, further comprising:

    determining whether two or more open connections are in a busy open state ~~and no open connection is in an idle open state~~;

    determining which [[an]] busy open connection ~~from said two or more open connections~~ [[with]] has a longest busy open state connection time; and

    ~~wherein said selected open connection is said determined connection from said two or more~~ releasing the busy open ~~connections~~ connection with said longest busy open state connection time.

15.   (Currently amended) The method ~~as recited in~~ of claim 1, if there are no idle open connections, further comprising:

    determining whether two or more open connections are in a busy open state ~~and no open connection is in an idle open state~~;

    determining which [[an]] busy open connection ~~from said two or more open connections~~ ~~used to~~ ~~transfer~~ transferred a predetermined amount of data in a predetermined period of time; and

    ~~wherein said selected open connection is said determined~~ releasing the busy open connection used to transfer said predetermined amount of data in said predetermined period of time.

16.   (Currently amended) The method ~~as recited in~~ of claim 15 wherein said predetermined amount of data is a largest amount of data transferred ~~by a user of users of said two or more open connections in said busy open state~~.

17.   (Currently amended) The method ~~as recited in~~ of claim 15 wherein said predetermined period is a period ~~after a user of users of said two or more~~ when the open connections are in said busy open state ~~move to said busy open state~~.

18.   (Canceled)

19.   (Currently amended) The method ~~as recited in~~ of claim 1, if there are no idle open connections, further comprising:

　　determining whether two or more open connections are in a busy open state ~~and no open connection is in an idle open state~~;

　　determining which [[an]] busy open connection ~~from said two or more open connections in said busy open state used to transfer~~ transferred data at a predetermined data rate in a predetermined period of time; and

　　~~wherein said selected open connection is said determined~~ releasing the busy open connection used to transfer data at said predetermined data rate in said predetermined period of time.

20.   (Currently amended) The method ~~as recited in~~ of claim 19 wherein said predetermined data rate is a highest data rate ~~used by a user of users of said two or more open connections in said busy open state~~.

21.   (Canceled)

22.   (Currently amended) The method ~~as recited in~~ of claim 1, if there are no idle open connections, further comprising:

determining whether two or more open connections are in a busy open state ~~and no open connection is in an idle open state~~;

determining which [[an]] busy open connection ~~from said two or more open connections with~~ has a longest combined idle open state connection time and busy open state connection time; ~~wherein said selected open connection is said determined connection with said longest combined idle open state connection time and busy open state connection time~~.

23. (Currently amended) The method ~~as recited in~~ of claim 1 further comprising:

determining at least an open connection in a busy open state and at least an open connection in an idle open state; and

~~wherein said selected~~ selecting one of the open ~~connection is one of said least open~~ connections to release.

24. (Currently amended) The method ~~as recited in~~ of claim 23 wherein said [[least]] open connections include two or more open connections in said busy open state and two or more open connections in said idle open state, further comprising:

determining which [[an]] open connection ~~from said two or more open connections with~~ has a longest idle open state connection time; and

~~wherein said selected open connection is said determined~~ releasing the open connection with said longest idle open state connection time.

25. (Currently amended) The method ~~as recited in~~ of claim 23 wherein said [[least]] open connections include two or more open connections in said busy open state and two or more open connections in said idle open state, further comprising:

determining which [[an]] open connection ~~from said two or more open connections with~~ has a longest busy open state connection time; and

~~wherein said selected open connection is said determined~~ releasing the open connection with said longest busy open state connection time.

26.   (Currently amended) The method ~~as recited in~~ of claim 23 wherein said [[least]] open connections include two or more open connections in said busy open state and two or more open connections in said idle open state, further comprising:

determining which [[an]] open connection ~~from said two or more open connections used to transfer~~ transferred a predetermined amount of data in a predetermined period of time; and

~~wherein said selected open connection is~~ releasing said determined open connection used to transfer said predetermined amount of data in said predetermined period of time.

27.   (Currently amended) The method ~~as recited in~~ of claim 26 wherein said predetermined amount of data is a largest amount of data transferred ~~by a user of users of said two or more open connections in said busy open state and said idle open state~~.

28.   (Canceled)

29.   (Currently amended) The method ~~as recited in~~ of claim 23 wherein said [[least]] open connections include two or more open connections in said busy open state and two or more open connections in said idle open state, further comprising:

determining which [[an]] open connection ~~from said two or more open connections used to transfer~~ transferred data at a predetermined data rate in a predetermined period of time; and

~~wherein said selected open connection is~~ releasing said determined open connection ~~from said two or more open connections~~ used to transfer data at said predetermined data rate in said predetermined period of time.

30.   (Currently amended) The method ~~as recited in~~ of claim 29 wherein said predetermined data rate is a highest data rate ~~used by a user of users of said two or more open connections~~.

31.   (Canceled)

32. (Currently amended) The method as recited in claim 23 wherein said [[least]] open connections include two or more open connections in said busy open state and two or more open connections in said idle open state, further comprising:

determining which [[an]] open connection from said two or more open connections with has a longest combined idle open state connection time and busy open state connection time; and wherein said selected open connection is said releasing the determined connection with said longest combined idle open state connection time and busy open state connection time.

33. (Canceled)

34. (Currently amended) The method as recited in of claim [[33]] 1 wherein said detecting determining whether the access network has an overload condition includes:

detecting a predetermined number of existing connections; wherein said overload condition is based on said number of existing connections.

35. (Currently amended) The method as recited in of claim [[33]] 1 wherein said detecting includes further comprising:

monitoring utilization and activity of a reverse link; wherein said overload condition is based on a level of said utilization and activity.

36-40. (Canceled)

41. (Currently amended) An apparatus comprising:

a resource manager for managing a plurality of communication resources in an access network between an access terminal and a data network; and

a plurality of connection controllers in communication with said resource manager for making requests for allocating communication resources to a new connection;

wherein said resource manager is configured to detect a request for opening a new connection for communication of data between the access terminal and the data network, to determine whether the access network has an overload condition, to detect a plurality of

determine whether there are any pre-existing idle open connections in [[an]] the access network between the access terminal and the data network, each idle open connection having assigned communication resources, to select one of the [[a]] pre-existing idle open connection among the plurality of pre-existing open connections based on at least one of (a) open connection times and (b) previous data traffic activity of the idle open connections, each pre-existing open connection being in one of a busy open state or an idle open state, and to release said selected open connection for allocating, to said access terminal new connection, communication resources corresponding to said released, selected open connection.

42.   (Currently amended) The apparatus as recited in of claim 41 wherein said selected open connection is in an idle open state to determine the overload condition comprises at least one of (a) to determine whether communication resources in the access network are limited, (b) to determine whether a pre-configured number of maximum connections per channel has been reached, and (c) to determine whether a reverse link loading threshold has been exceeded.

43-44. (Canceled)

45.   (Currently amended) A method comprising:

        detecting a request for opening a new connection between an access terminal and a data network for communication of data;

        selecting a pre-existing idle open connection in an access network between [[an]] the access terminal and [[a]] the data network based on a grade of service assigned to said pre-existing open connection and data traffic activity of the pre-existing open connection;

        releasing said selected open connection; and

        allocating, to said [[user]] new connection, communication resources corresponding to said released, selected open connection.

46-48. (Canceled)

49. (Previously Presented) In a communication system for communication of data, a method comprising:

detecting a request for opening a connection for a user for communication of data;

selecting two or more open connections based on a grade of service assigned to said open connections;

determining whether two or more of the selected open connections are in an idle open state;

selecting an idle open connection, from said two or more selected open connections in said idle open state, with a longest idle open state connection time;

releasing said selected idle open connection; and

allocating, to said user, communication resources corresponding to resources released based on said releasing said selected idle open connection.

50. (Currently amended) In a communication system for communication of data, a method comprising:

detecting a request for opening a connection for a user for communication of data;

selecting two or more open connection based on a grade of service assigned to said open connections;

determining whether two or more of the selected open connections are in an idle open state;

selecting an idle open connection, from said two or more selected open connections in said idle open state, used to transfer a predetermined amount of data in a predetermined period of time;

releasing said selected idle open connection; and

allocating, to said user, communication resources corresponding to resources released based on said releasing said selected idle open connection.

51. (Previously presented) The method of Claim 1, wherein the access network is a code division multiple access (CDMA) network configured to communicate wirelessly with the access terminal.